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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,512

Applicant(s)

LACHERADE ET AL.

Examiner

Greg Binda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-95 is/are pending in the application.
- 4a) Of the above claim(s) 61-95 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

1. Applicant's election with traverse of a device for mounting a rotating member (Group I) in the reply filed on December 8, 2005 is acknowledged. The traversal is on the ground(s) that the device can only be made by the methods claimed because the device includes the limitation "a diabolo shape generated by a revolution" and because no serious burden would experienced by the examiner in the prosecution of the unelected invention include. This is not found persuasive because the elected invention is a product, that, as applicant clearly acknowledges, can be made by a several methods (see paragraph 0016). Furthermore, patentability of such a device matters not in how its produced, even if the claims include product-by-process limitations. Instead, patentability of the device rests on its structure and capabilities. As for the burden on the examiner, as noted in the previous Office action, prosecution of the unelected invention would place serious burden on the examiner. The examiner has less than 12 hours to prosecute this case from start to finish (i.e. allowance, abandonment, RCE, or forwarding to board of appeals). Just prosecuting the elected invention in this amount of time will be a challenge.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 61-95 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant elected a device for mounting a rotating member (Group I) and timely traversed the restriction (election) requirement in the reply filed on December 8, 2005.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in France on April 17, 2003. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b). A paper was received that was purported to be a certified copy of the foreign application, but that paper lacks a serial number or a date corresponding to that of the alleged foreign priority application. Nor does it appear to have a ribbon attached to it.

Drawings

4. The drawings are objected to under 37 CFR 1.84(h)(5) because Figures 1 & 2 show modified forms of construction in the same view (see paragraphs 0028 & 0019). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

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informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because at page 6, lines 29 & 30, the numeral “20” should be rewritten as the word “twenty”.

Claim Objections

6. Claims 39-59 are objected to because the limitation “the another structure” should be rewritten in proper English, for example “the second structure”. Such change would include rewriting the limitation “is disposed in another structure” as “is disposed in a second structure”.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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- a. Claim 1, line 5 recites the limitation, “the rotating member comprising a shaft”. However, the specification teaches that the shaft 3 does not rotate. See for example paragraph 0014 where the shaft 3 is disclosed as rigidly connected to the first fixed structure 4.
 - b. Claim 3, recites the limitation, “an inner diameter [of the hyperboloid structure] is less than an initial diameter”. However, the specification teaches the opposite where, at page 6, line 14, it teaches the inner diameter 33 is wider (i.e. greater than) the initial diameter 30.
 - c. Claim 3 recites the limitation, “the difference in curvature forming an elastic fit over the rotating member.” However, the specification teaches at page 6, lines 15 & 16, the difference in curvature forms the elastic fit over the shaft 3 (which is recited in claim 1, line 5) not the “rotating member” (which is recited in claim 1, line 1).
 - d. Claims 38-48 recite the limitation “the another structure being lighter . . .the first structure.” However, the specification teaches at page 4, lines 4-6 that “the another structure” structure 4 is heavier, not lighter, than the first structure 6 (i.e. the structure having a bore 37 and a ring 5 housed within the bore).
9. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
10. Claims 3, 5, 7, 13, 15-21, 23, 28, 30, 35, 36, 40, 46, 51, 57 & 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 3 recites the limitation, “less than an initial diameter” but does not identify the element whose diameter is “an initial diameter”
- b. Claims 15-18 recite the nonsensical limitation, “one diametrically opposite parts”
- c. Claims 21 & 28 recite the limitation “the hyperboloid structure”. There is insufficient antecedent basis for this limitation in the claims.
- d. Claims 21, 28 & 35 recite the limitation “the first and second crowns”. There is insufficient antecedent basis for this limitation in the claims.
- e. Claim 60 recites the limitation, “an anode”. It is not clear if this anode is the same as the rotating member recited at claim 1, line 1. If so, then how can the device in claim 60 include the anode, if, as in claim 1, line 1, the rotating member is supposed to be separate and distinct from the “device”?

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Bossler, US 3,394,972. Figs. 3 & 4 show a device for mounting a rotating member comprising: a first

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structure 44; a bore 52 formed in the first structure; a ring 26 housed in the bore; one end of the rotating member comprising a shaft 10 inserted in the ring 26, wherein the ring comprises a diabolo shape (see also “hyperboloid” in col. 3, lines 17, 18 & 25).

13. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Rongley, US 4,286,894. Fig 10 shows a device for mounting a rotating member comprising: a first structure 20; a bore formed in the first structure; a ring 15A housed in the bore; one end of the rotating member comprising a shaft 19 inserted in the ring, wherein Fig. 3 shows the ring 15A comprises a diabolo shape.

14. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Willem, US 4,130,926. Fig. 4 shows a device for mounting a rotating member comprising: a first structure 3-5; a bore (see Fig. 2) formed in the first structure; a diabolo-shaped ring 2 housed in the bore; and one end of the rotating member comprising a shaft 1 inserted in the ring 26.

15. Claims 1 & 60 are rejected under 35 U.S.C. 102(e) as being anticipated by Dahan et al, US 6,888,923. Fig 2 shows a device for mounting a rotating member comprising: a first structure 46; a bore formed in the first structure; a ring 55 housed in the bore; one end of the “rotating” member comprising a shaft 36 inserted in the ring, wherein Fig. 4 shows the ring 55 comprises a diabolo shape. Fig. 2 shows the shaft 36 is affixed to an anode 30 of an X-ray tube (see also col. 2, lines 18-20).

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The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Willem.

Although Willem does not show the other end of the shaft 1 disposed in a second structure in the same manner it's one end is shown in a first structure, such a modification would have been obvious at the time of applicant's invention, since such a modification would have involved a mere duplication of parts. The duplication of parts for a multiplied effect has no patentable significance and is considered well within the purview and obvious to one of ordinary skill in the art. *St. Regis Paper Co. v. Bemis Co., Inc.* 193 USPQ 8, 11 (7th Cir. 1977).

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18. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Bossler and Rongley for the same reason noted immediately above.

19. Claims 1-14, 29-35, 49-56, 59 & 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starek et al, US 4,635,283 (Starek) in view of Wilhelm, US 1,833,145.

a. Claims 1-3, 29-35, 49-51, 59. In Figs. 1 & 2, Starek shows a device comprising: two structures (the left and right halves of the element identified by the numeral 6) that each have a bore; a resilient connector ring 8 housed in each bore; and both ends of a shaft 2 inserted in a corresponding ring 8. Starek does not show each ring formed as a hyperboloid having inclined beams and first and second crowns. In Fig. 3 Wilhelm shows a connector ring 4 comprising inclined beams 7 and first and second crowns 4 & 5. At page 1, lines 12-14 and page 2, lines 38+, Wilhelm teaches that the ring 4 provides a connection that is mechanically excellent. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Starek by using rings like that of Wilhelm in order to provide a connection that is mechanically excellent as taught by Wilhelm.

b. Claims 4, 5, 52 Wilhelm shows in Fig. 1 that there are at least twenty beams 7.

c. Claims 6-14, 53-56. In Fig. 3, Wilhelm shows the beams are inclined, but does not expressly disclose the angle of inclination is 50 degrees or a value other than 50 degrees. However, it would have been obvious to one of ordinary skill in the art to design the ring so that the beams are inclined at 50 degrees or a value other than 50 degrees, since it has

been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

d. Claim 60. In Fig. 1, Starek shows the shaft 2 is affixed to an anode 10 of an X-ray tube.

20. Claims 15-28, 36, 37, 57, 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starek in view of Wilhelm as applied to claims 1-14, 29-35, 49-56, 59 & 60 above, and further in view of Wilde, US 246,846. Wilhelm shows the resilient ring 4 having all the limitations of the claims except an opening in either one or both of the crowns 11 & 12. Wilde teaches that providing a resilient ring with such openings allows the ring with to expand and thus provide a firm and true connection even under great pressure. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ring(s) in the combination of Starek and Wilhelm by providing the ring(s) with openings at one or both of the first and second crowns in order to provide a firm and true connection as taught by Wilde.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Orain, Kurachi and Wentz each show a diabolo-shaped ring. Blecker shows a diabolo.

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22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda
Primary Examiner
Art Unit 3679